APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/691,490	10/18/2000	Humberto Rodriguez	EMC00-22(00076)	5123

7590	09/09/2004

Barry W. Chapin, Esq.
Chapin & Huang, L.L.C.
Westborough Office Park
1700 West Park Drive
Westborough, MA 01581

EXAMINER
LAMARRE, GUY J

ART UNIT	PAPER NUMBER
2133	

DATE MAILED: 09/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	09/691,490	RODRIGUEZ ET AL.
	Examiner	Art Unit	
	Guy J. Lamarre, P.E.	2133	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _14 June 2004_ .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-35_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-35_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on _18 October 2000_ is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

    If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

        1.☐ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____ .

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

    a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

FINAL OFFICE ACTION

1.   This office action is in response to Applicants' Amendment of *14 June 2004*.

1.1   Claims **1, 2, 7, 8, 13, 15-22, 25, 27-31 and 33** are amended, **Claims 34-35** are added.

Claims 1-35 remain pending.

1.2   The prior art rejections of record are <u>maintained</u> in response to Applicants' Amendment.

1.3   The **objections** and rejections of record under 35 U.S.C. 112 are withdrawn in response

to Applicants' amendment.

Response to Arguments

2.   Applicants' arguments of *14 June 2004* have been fully considered, but are not

persuasive.

Claim Rejections - 35 USC ' 103

3.1   Claims **1-35** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Applicants'
Admitted prior art (hereinafter Admitted prior art)** in view of **Pomerantz** (US Patent No.
6,567,953; filed: 29 Mar. 2000).

     As per Claims 1, 15, 29 and **33-35, Admitted prior art** substantially discloses, in page 2

line 5 – page 3 line 19, equivalent detecting means comprising checksum means along with

checksum insertion/embedding means into application data or database followed checksum

compare means to determine error status of data storage or database.

     Not specifically described in detail in **Admitted prior art** is the step whereby data

compatibility is assured.

     However, those of ordinary skill in memory testing will recognize that ensuring data

compatibility is one of the desiderata of memory design. For example, **Pomerantz,** in an

analogous art, discloses data transfer validation means between device and host wherein such

data compatibility techniques are described. {See **Pomerantz,** Id., e.g., col. 1 line 15 et seq.,

Figs. 1-8 and related description.} **Therefore,** it would have been obvious to a person having

ordinary skill in the art at the time the invention was made to modify the procedure in **Admitted**

prior art by including data compatibility means as taught by **Pomerantz,** because such

modification would provide the procedure disclosed in **Admitted prior art** with a technique

whereby " data access is optimized." {See **Pomerantz,** col. 2 line 40 et seq.}

     As per Claims 2-14, 16-28, 30-32, Pomerantz discloses data partitioning means in Figs.

5-6 and col. 2 line 40 et seq., error checking means in Figs. 2-4 via CRC <u>with CRC sizing means</u>

<u>in M-byte language in col. 3 line 48 et seq</u>., or **Admitted prior art** at page 2 line 5 – page 3 line

19, memory allocation/designation means in Fig. 5., command/request means in Fig. 6: block

600, checksum/CRC compare and interface means, e.g., in Fig. 2: blocks 230, 235, 240, storage

system interconnection means in Figs. 1-2, means to time-stamp and interrupt data transfer in

col. 3 line 24 et seq., means to convert data from one format to another in col. 1 line 35 et seq.

FIG. 2
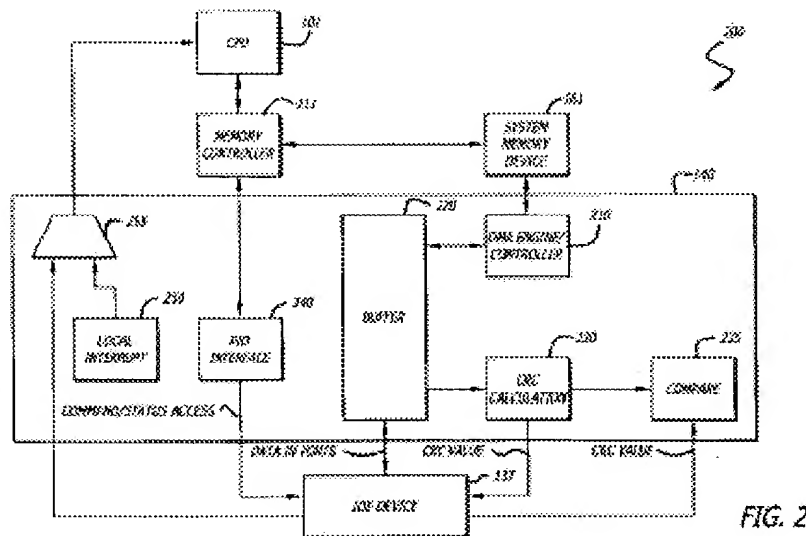
REMARKS

4.0   In response to **Claims 1-35,** Applicants argue, on pages 19-22, that the prior art of record

does not teach the claims as amended, i.e.,' *There is no description of generating data storage*

error-checking information on data to be stored. '

Examiner disagrees and notes that Applicants concede that '*The Background describes*

only the generating of a checksum on application data and storing the checksum with the data,

and upon a read of the data comparing the checksum with a checksum that is computed from the

data at the time of the read. ' Therefore, the admitted prior art does generate CRC or checksum

on data to be stored.

4.1   In response to **Claims 1-35,** Applicants also argue, on pages 19-22, that the prior art of

record does not teach the claims as amended, i.e.,' *Pomerantz has no description of anything that*

can be characterized as application error checking information, because the CRC values

appearing in Pomerantz are all created only at the hardware level and not by any application

program such as a database program. '

Examiner disagrees and notes that Applicants concede that '*The Background describes*

certain operations of the Oracle database application, in particular operations directed to error

detection. Database data is organized into application data blocks which are written to and read

from storage. When an application data block is to be written to storage, Oracle generates a

checksum and includes it with the data for writing to storage. When a data block is read from

storage, Oracle computes a checksum from the data portion of the application data block and

compares the computed checksum with the checksum that was stored as part of the application

data block. If the checksums match, the data is accepted as being error free. If the checksums do

not match, then Oracle generates an error indication to the user indicating that the data has an

Error and may not be usable. ' Therefore, the admitted prior art does generate '*application error*

checking information.'

4.2   In response to **Claims 1-35,** Applicants further argue, on pages 19-22, that the prior art of

record does not teach the claims as amended, i.e.,' *CRC values are not described as being of*

incompatible formats, nor does Pomerantz show any conversion of CRC values from one format to another.'

Examiner thus disagrees and notes that no 'incompatible language is seen in the claims:' what is seen is conversion of M-byte to N-byte.

To the extent that M is different from N, Examiner notes that **Pomerantz,** at col. 3 line 48 et seq., teaches CRC sizing means wherein CRC is M-bytes long and that **Pomerantz,** e.g., at col. 1 line 28 et seq., discloses a plurality of transfer protocols or conversion techniques for effecting data transfer handshaking between memory devices and host.

Pomerantz, at col. 2 line 48 et seq., teaches data compatibility via data/CRC partitioning means for more efficient data transfer, intermediate data/CRC sizing/detecting means followed by potential final data/CRC sizing/detecting means, which entails equivalent M-byte to N-byte conversions and logic adding means or modulo-based operations via EXOR means.

Potential final CRC involves performing EXOR function on the plural intermediate or interim CRC's to thereby provide the final CRC.

Examiner also notes that 'A CRC is accomplished with various combinations of shift registers and EXOR gates to produce a unique (or nearly unique) number for a given input bit stream. The CRC may be accomplished in either software, hardware, or a combination of both.'

4.3   To the extent that the response to the applicant's arguments may have mentioned new portions of the prior art references which were not used in the prior office action, this does not constitute a new ground of rejection. It is clear that the prior art reference is of record and has been considered entirely by applicant. See *In re Boyer*, 363 F.2d 455, 458 n.2, 150 USPQ 441, 444, n.2 (CCPA 1966) and *In re Bush*, 296 F.2d 491, 496, 131 USPQ 263, 267 (CCPA 1961).

The mere fact that additional portions of the same reference may have been mentioned or relied upon does not constitute new ground of rejection. *In re Meinhardt*, 392, F.2d 273, 280, 157 USPQ 270, 275 (CCPA 1968).

Examiner thus maintains that **Claims 1-35** are unpatentable over the prior art of record.

Conclusion

5.   **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

5.1   Any response to this action should be mailed to:

Commissioner of Patents and Trademarks, Washington, D.C. 20231

or faxed to: (703) 872-9306 for all formal communications.

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, <u>Fourth Floor</u> (Receptionist).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Guy J. Lamarre, P.E., whose telephone number is (703) 305-0755. The examiner can normally be reached on Monday to Friday from 9:30 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Albert De Cady, can be reached at (703) 305-9595.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-3900.

Information regarding the status of an application may also be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Guy J. Lamarre, P.E
Primary Examiner
9/3/04